

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-111559

(43)Date of publication of application : 30.04.1996

(51)Int.Cl.

H01S 3/18

(21)Application number : 06-243683

(71)Applicant : HITACHI LTD

(22)Date of filing : 07.10.1994

(72)Inventor : SHISHIKURA MASATO
NAKAMURA HITOSHI
TSUJI SHINJI
HANATANI SHOICHI
TANAKA SHIGEHISA

(54) SEMICONDUCTOR LIGHT EMITTING/RECEIVING ELEMENT AND DEVICE

(57)Abstract:

PURPOSE: To provide a compact bidirectional semiconductor light emitting/ receiving element and a device, which are suitable for expansion of an information service network, at low cost.

CONSTITUTION: The title semiconductor light emitting/receiving element is a surface-mounting type element, a light-absorbing layer 22, to be used to detect a signal light, and an active layer 2, to be used to emit a signal light, are provided thereon, and the above-mentioned layers are laminated or integrated. Also, a circular groove, to be used to fix optical fiber 27, is formed on the P-InP substrate 21 located on an active layer, and a signal light of long wavelength is transmitted from a transmitting/receiving wavelength band. If the surface-mounting type semiconductor light emitting/receiving element and its device are used, a compact bidirectional light-transmitting/receiving module can be manufactured at low cost.

